Welcome to STN International! Enter x:x

LOGINID:ssspta1712mxf

PASSWORD:

.

TERMINAL (ENTER 1, 2, 3, OR ?):2

```
NEWS
                 Web Page URLs for STN Seminar Schedule - N. America
                 "Ask CAS" for self-help around the clock
NEWS
     2
                 IPC search and display fields enhanced in CA/CAplus with the
NEWS
         DEC 21
                 IPC reform
                 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/
NEWS
         DEC 23
                 USPAT2
                 IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS
     5
         JAN 13
NEWS 6
         JAN 13
                 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to
                 INPADOC
     7
NEWS
         JAN 17
                 Pre-1988 INPI data added to MARPAT
                 IPC 8 in the WPI family of databases including WPIFV
NEWS
     8
         JAN 17
NEWS
    9
         JAN 30
                 Saved answer limit increased
NEWS 10
         JAN 31
                 Monthly current-awareness alert (SDI) frequency
                 added to TULSA
NEWS 11
         FEB 21
                 STN AnaVist, Version 1.1, lets you share your STN AnaVist
                 visualization results
NEWS 12
         FEB 22
                 Status of current WO (PCT) information on STN
NEWS 13
                 The IPC thesaurus added to additional patent databases on STN
        FEB 22
NEWS 14 FEB 22
                 Updates in EPFULL; IPC 8 enhancements added
NEWS 15 FEB 27
                 New STN AnaVist pricing effective March 1, 2006
NEWS 16 FEB 28
                MEDLINE/LMEDLINE reload improves functionality
NEWS 17
        FEB 28
                 TOXCENTER reloaded with enhancements
NEWS 18 FEB 28
                 REGISTRY/ZREGISTRY enhanced with more experimental spectral
                 property data
NEWS 19 MAR 01
                 INSPEC reloaded and enhanced
                Updates in PATDPA; addition of IPC 8 data without attributes
NEWS 20 MAR 03
        MAR 08
NEWS 21
                X.25 communication option no longer available after June 2006
NEWS 22
        MAR 22
                 EMBASE is now updated on a daily basis
NEWS EXPRESS
```

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
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http://download.cas.org/express/v8.0-Discover/

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FILE 'HOME' ENTERED AT 16:49:48 ON 27 MAR 2006

=> file registry
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 16:50:06 ON 27 MAR 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

chain nodes : 1 2 3 4 5 ring nodes : 6 7 8 9 10 11 12 13 14 15 16 17 chain bonds : 1-3 1-2 2-4 3-5 4-8 5-16 ring bonds : 6-7 6-11 7-8 8-9 9-10 10-11 10-19 11-19 12-13 12-17 13-14 13-18 14-15 14-18 15-16 16-17 exact/norm bonds :

1-3 1-2 2-4 3-5 6-7 6-11 7-8 8-9 9-10 10-11 10-19 11-19 12-13 12-17 13-14 13-18 14-15 14-18 15-16 16-17 exact bonds : 4-8 5-16

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

L1 STRUCTURE UPLOADED

Uploading C:\Program Files\Stnexp\Queries\09885269 cyclo OS.str 16 's 18 12

chain nodes : 1 2 3 4 5 ring nodes :

6 7 8 9 10 11 12 13 14 15 16 17 18 19

chain bonds :

1-3 1-2 2-4 3-5 4-8 5-16

ring bonds :

6-7 6-11 7-8 8-9 9-10 10-11 10-19 11-19 12-13 12-17 13-14 13-18 14-15

14-18 15-16 16-17 exact/norm bonds :

1-3 1-2 2-4 3-5 6-7 6-11 7-8 8-9 9-10 10-11 10-19 11-19 12-13 12-17

13-14 13-18 14-15 14-18 15-16 16-17

exact bonds : 4-8 5-16

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

0 ANSWERS

L2STRUCTURE UPLOADED

=> s sam l1

SAMPLE SEARCH INITIATED 16:50:33 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -2 TO ITERATE

100.0% PROCESSED 2 ITERATIONS SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE** BATCH

COMPLETE PROJECTED ITERATIONS: 2 TO

PROJECTED ANSWERS: 0 TO => s sam 12

SAMPLE SEARCH INITIATED 16:50:36 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED -

100.0% PROCESSED

0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: PROJECTED ANSWERS:

0 TO

0 TO

L4

0 SEA SSS SAM L2

=> s full 11

FULL SEARCH INITIATED 16:50:39 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED -

39 TO ITERATE

100.0% PROCESSED

39 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L5

0 SEA SSS FUL L1

=> s full 12

FULL SEARCH INITIATED 16:50:43 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED -

1 TO ITERATE

100.0% PROCESSED

1 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L6

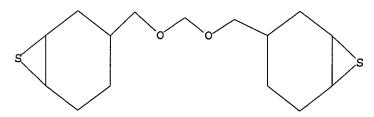
0 SEA SSS FUL L2

=> d l1

L1 HAS NO ANSWERS

Ll

STR



Structure attributes must be viewed using STN Express query preparation.

=> d 12

L2 HAS NO ANSWERS

L2STR

Structure attributes must be viewed using STN Express query preparation.

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST

334.32 334.53

STN INTERNATIONAL LOGOFF AT 16:51:44 ON 27 MAR 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1712mxf

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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FILE 'HOME' ENTERED AT 16:57:04 ON 27 MAR 2006

=> file registry COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 16:57:29 ON 27 MAR 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> file registry
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.44 0.65

FILE 'REGISTRY' ENTERED AT 16:57:46 ON 27 MAR 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

Uploading C:\Program Files\Stnexp\Queries\09885269 cyclo7 OS.str

chain nodes :
1 2 3 24
ring nodes :

=>

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 chain bonds:

1-2 1-18 1-6 2-3 3-14 3-24 ring bonds:

4-5 4-9 5-6 6-7 7-8 8-9 8-17 9-17 10-11 10-15 11-12 11-16 12-13 12-16 13-14 14-15 18-19 18-23 19-20 20-21 21-22 22-23 exact/norm bonds:

1-2 2-3 3-24 4-5 4-9 5-6 6-7 7-8 8-9 8-17 9-17 10-11 10-15 11-12 11-16 12-13 12-16 13-14 14-15 exact bonds:

1-18 1-6 3-14 normalized bonds:

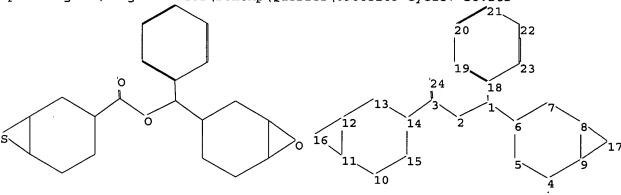
18-19 18-23 19-20 20-21 21-22 22-23

Match level :

1:CLASS 2:CLASS 3:CLASS 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS

L1 STRUCTURE UPLOADED

Uploading C:\Program Files\Stnexp\Queries\09885269 cyclo7 SO.str



chain nodes : 1 2 3 24 ring nodes : 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 chain bonds : 1-2 1-18 1-6 2-3 3-14 3-24 ring bonds : 4-5 4-9 5-6 6-7 7-8 8-9 8-17 9-17 10-11 10-15 11-12 11-16 12-13 12-16 13-14 14-15 18-19 18-23 19-20 20-21 21-22 22-23 exact/norm bonds : 1-2 2-3 3-24 4-5 4-9 5-6 6-7 7-8 8-9 8-17 9-17 10-11 10-15 11-12 11-16 12-13 12-16 13-14 14-15 exact bonds : 1-18 1-6 3-14 normalized bonds : 18-19 18-23 19-20 20-21 21-22 22-23

Match level :

1:CLASS 2:CLASS 3:CLASS 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS

L2 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\09885269 cyclo7 SS.str

chain nodes:
1 2 3 24
ring nodes:

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

chain bonds :

1-2 1-18 1-6 2-3 3-14 3-24

ring bonds :

4-5 4-9 5-6 6-7 7-8 8-9 8-17 9-17 10-11 10-15 11-12 11-16 12-13 12-16

13-14 14-15 18-19 18-23 19-20 20-21 21-22 22-23

exact/norm bonds :

1-2 2-3 3-24 4-5 4-9 5-6 6-7 7-8 8-9 8-17 9-17 10-11 10-15 11-12

11-16 12-13 12-16 13-14 14-15

exact bonds : 1-18 1-6 3-14

normalized bonds :

18-19 18-23 19-20 20-21 21-22 22-23

Match level :

1:CLASS 2:CLASS 3:CLASS 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS

L3 STRUCTURE UPLOADED

=> s sam 11

SAMPLE SEARCH INITIATED 16:58:32 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITE

0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0 PROJECTED ANSWERS: 0 TO 0

=> s sam 12

SAMPLE SEARCH INITIATED 16:58:36 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0 PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L2

=> s sam 13

SAMPLE SEARCH INITIATED 16:58:39 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 1 TO 80
PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L3

=> s full 11

FULL SEARCH INITIATED 16:58:42 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

L7 0 SEA SSS FUL L1

=> s full 12

FULL SEARCH INITIATED 16:58:45 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 0 ANSWERS SEARCH TIME: 00.00.01

L8 0 SEA SSS FUL L2

=> s full 13

FULL SEARCH INITIATED 16:58:48 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 36 TO ITERATE

100.0% PROCESSED 36 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

L9 0 SEA SSS FUL L3

=>

---Logging off of STN---

=>
Executing the logoff script...

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 500.38 501.03

FULL ESTIMATED COST

STN INTERNATIONAL LOGOFF AT 16:58:54 ON 27 MAR 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID: ssspta1712mxf

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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FILE 'HOME' ENTERED AT 17:03:17 ON 27 MAR 2006

=> file registry
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 17:03:31 ON 27 MAR 2006
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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

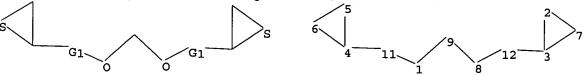
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http://www.cas.org/ONLINE/UG/regprops.html

=> Uploading C:\Program Files\Stnexp\Queries\09885269 10 SS.str



chain nodes :

1 8 9 11 12 ring nodes:

2 3 4 5 6 7

chain bonds :

1-11 1-9 3-12 4-11 8-9 8-12

ring bonds :

2-7 2-3 3-7 4-6 4-5 5-6

exact/norm bonds :

1-11 1-9 2-7 2-3 3-7 3-12 4-6 4-5 4-11 5-6 8-9 8-12

G1:Cb,Ak

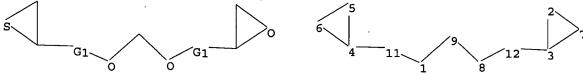
Match level :

1:CLASS 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 11:CLASS 12:CLASS

L1 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\09885269 10 OS.str



chain nodes :
1 8 9 11 12
ring nodes :
2 3 4 5 6 7
chain bonds :

1-11 1-9 3-12 4-11 8-9 8-12

ring bonds :

2-7 2-3 3-7 4-6 4-5 5-6

exact/norm bonds :

1-11 1-9 2-7 2-3 3-7 3-12 4-6 4-5 4-11 5-6 8-9 8-12

G1:Cb,Ak

Match level :

1:CLASS 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 11:CLASS 12:CLASS

L2 STRUCTURE UPLOADED

=> s sam l1

SAMPLE SEARCH INITIATED 17:03:56 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 5789 TO ITERATE

34.5% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 111218 TO 120342

PROJECTED ANSWERS: 0 TO

L3 0 SEA SSS SAM L1

=> s sam 12 SAMPLE SEARCH INITIATED 17:04:00 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 4211 TO ITERATE

47.5% PROCESSED 2000 ITERATIONS 0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 80329 TO 88111

· 0 TO PROJECTED ANSWERS:

0 SEA SSS SAM L2

=> s full l1 FULL SEARCH INITIATED 17:04:04 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 115678 TO ITERATE

100.0% PROCESSED 115678 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.03

0 SEA SSS FUL L1

=> s full 12 FULL SEARCH INITIATED 17:04:10 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 81845 TO ITERATE

100.0% PROCESSED 81845 ITERATIONS O ANSWERS

SEARCH TIME: 00.00.01

O SEA SSS FUL L2

=>

---Logging off of STN---

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION FULL ESTIMATED COST 333.88 334.09

STN INTERNATIONAL LOGOFF AT 17:04:25 ON 27 MAR 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1712mxf

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * Welcome to STN International NEWS Web Page URLs for STN Seminar Schedule - N. America NEWS "Ask CAS" for self-help around the clock NEWS 3 DEC 21 IPC search and display fields enhanced in CA/CAplus with the IPC reform NEWS DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/ NEWS 5 **JAN 13** IPC 8 searching in IFIPAT, IFIUDB, and IFICDB NEWS JAN 13 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC NEWS **JAN 17** Pre-1988 INPI data added to MARPAT IPC 8 in the WPI family of databases including WPIFV NEWS 8 JAN 17 NEWS 9 JAN 30 Saved answer limit increased NEWS 10 JAN 31 Monthly current-awareness alert (SDI) frequency added to TULSA NEWS 11 FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results NEWS 12 FEB 22 Status of current WO (PCT) information on STN NEWS 13 FEB 22 The IPC thesaurus added to additional patent databases on STN NEWS 14 FEB 22 Updates in EPFULL; IPC 8 enhancements added NEWS 15 FEB 27 New STN AnaVist pricing effective March 1, 2006 NEWS 16 FEB 28 MEDLINE/LMEDLINE reload improves functionality NEWS 17 FEB 28 TOXCENTER reloaded with enhancements NEWS 18 FEB 28 REGISTRY/ZREGISTRY enhanced with more experimental spectral property data INSPEC reloaded and enhanced NEWS 19 MAR 01 NEWS 20 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes NEWS 21 MAR 08 X.25 communication option no longer available after June 2006 NEWS 22 MAR 22 EMBASE is now updated on a daily basis FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a, NEWS EXPRESS CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0jc(jp), AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005. V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT http://download.cas.org/express/v8.0-Discover/ NEWS HOURS STN Operating Hours Plus Help Desk Availability Welcome Banner and News Items NEWS LOGIN Enter NEWS followed by the item number or name to see news on that specific topic. All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties. * * * * * * * * * * * * * * * STN Columbus FILE 'HOME' ENTERED AT 17:18:20 ON 27 MAR 2006 => file registry COST IN U.S. DOLLARS

SINCE FILE

ENTRY

0.21

TOTAL

0.21

SESSION

FILE 'REGISTRY' ENTERED AT 17:18:36 ON 27 MAR 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

FULL ESTIMATED COST

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 26 MAR 2006 HIGHEST RN 878044-67-8 DICTIONARY FILE UPDATES: 26 MAR 2006 HIGHEST RN 878044-67-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

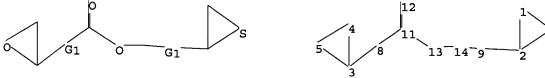
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

Uploading C:\Program Files\Stnexp\Queries\09885269 10 OSa.str



chain nodes :
8 9 11 12 13 14
ring nodes :
1 2 3 4 5 6
chain bonds :
2-9 3-8 8-11 9-14 11-12 11-13 13-14
ring bonds :
1-6 1-2 2-6 3-5 3-4 4-5
exact/norm bonds :
1-6 1-2 2-6 2-9 3-5 3-4 3-8 4-5 8

1-6 1-2 2-6 2-9 3-5 3-4 3-8 4-5 8-11 9-14 11-12 11-13 13-14

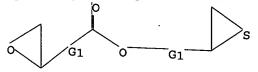
G1:Cb,Ak

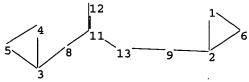
Match level : 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

L1 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\09885269 10 OSb.str





chain nodes :
8 9 11 12 13
ring nodes :
1 2 3 4 5 6
chain bonds :
2-9 3-8 8-11 9-13 11-12 11-13
ring bonds :
1-6 1-2 2-6 3-5 3-4 4-5
exact/norm bonds :

1-6 1-2 2-6 2-9 3-5 3-4 3-8 4-5 8-11 9-13 11-12 11-13

G1:Cb,Ak

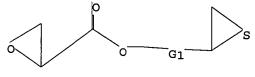
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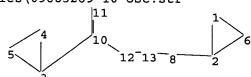
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS 11:CLASS 12:CLASS 13:CLASS

L2 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\09885269 10 OSc.str





chain nodes :
8 10 11 12 13
ring nodes :
1 2 3 4 5 6
chain bonds :
2-8 3-10 8-13 10-11 10-12 12-13
ring bonds :
1-6 1-2 2-6 3-5 3-4 4-5
exact/norm bonds :
1-6 1-2 2-6 2-8 3-5 3-4 4-5 8-13 10-11 10-12 12-13
exact bonds :
3-10

G1:Cb,Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS

L3 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\09885269 10 SOa.str

5 8 11 13⁻14⁻9 2

chain nodes :

8 9 11 12 13 14

ring nodes :

1 2 3 4 5 6

chain bonds :

2-9 3-8 8-11 9-14 11-12 11-13 13-14

ring bonds :

1-6 1-2 2-6 3-5 3-4 4-5

exact/norm bonds :

1-6 1-2 2-6 2-9 3-5 3-4 3-8 4-5 8-11 9-14 11-12 11-13 13-14

G1:Cb,Ak

Match level :

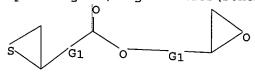
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS 11:CLASS

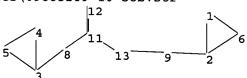
12:CLASS 13:CLASS 14:CLASS

L4 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\09885269 10 SOb.str





chain nodes :

8 9 11 12 13

ring nodes :

1 2 3 4 5 6

chain bonds :

2-9 3-8 8-11 9-13 11-12 11-13

ring bonds :

1-6 1-2 2-6 3-5 3-4 4-5

exact/norm bonds :

1-6 1-2 2-6 2-9 3-5 3-4 3-8 4-5 8-11 9-13 11-12 11-13

G1:Cb,Ak

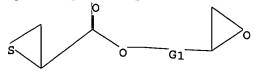
Match level :

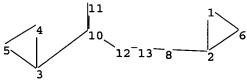
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS 11:CLASS

12:CLASS 13:CLASS

L5 STRUCTURE UPLOADED

Uploading C:\Program Files\Stnexp\Queries\09885269 10 SOc.str





chain nodes : 8 10 11 12 13 ring nodes : 1 2 3 4 5 6 chain bonds :

2-8 3-10 8-13 10-11 10-12 12-13

ring bonds :

1-6 1-2 2-6 3-5 3-4 4-5

exact/norm bonds :

1-6 1-2 2-6 2-8 3-5 3-4 4-5 8-13 10-11 10-12 12-13

exact bonds :

3-10

G1:Cb,Ak

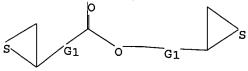
Match level :

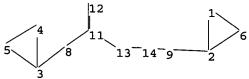
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 10:CLASS 11:CLASS

12:CLASS 13:CLASS

L6 STRUCTURE UPLOADED

Uploading C:\Program Files\Stnexp\Queries\09885269 10 SSa.str





chain nodes : 8 9 11 12 13 14 ring nodes :

1 2 3 4 5 6 chain bonds :

2-9 3-8 8-11 9-14 11-12 11-13 13-14

ring bonds :

1-6 1-2 2-6 3-5 3-4

exact/norm bonds :

1-6 1-2 2-6 2-9 3-5 3-4 3-8 4-5 8-11 9-14 11-12 11-13 13-14

G1:Cb,Ak

Match level :

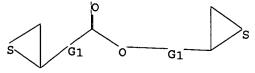
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS 11:CLASS

12:CLASS 13:CLASS 14:CLASS

L7 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\09885269 10 SSb.str



5 8 11 9 2

chain nodes :
8 9 11 12 13
ring nodes :
1 2 3 4 5 6
chain bonds :

2-9 3-8 8-11 9-13 11-12 11-13

ring bonds :

1-6 1-2 2-6 3-5 3-4 4-5

exact/norm bonds :

1-6 1-2 2-6 2-9 3-5 3-4 3-8 4-5 8-11 9-13 11-12 11-13

G1:Cb, Ak

Match level :

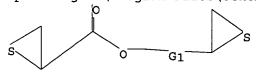
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS 11:CLASS

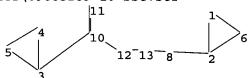
12:CLASS 13:CLASS

L8 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\09885269 10 SSc.str





chain nodes :
8 10 11 12 13
ring nodes :
1 2 3 4 5 6
chain bonds :
2-8 3-10 8-13 10-11 10-12 12-13
ring bonds :
1-6 1-2 2-6 3-5 3-4 4-5
exact/norm bonds :
1-6 1-2 2-6 2-8 3-5 3-4 4-5 8-13 10-11 10-12 12-13
exact bonds :
3-10

G1:Cb,Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 10:CLASS 11:CLASS

12:CLASS 13:CLASS

L9 STRUCTURE UPLOADED

=> s full 11

FULL SEARCH INITIATED 17:20:43 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 69795 TO ITERATE

100.0% PROCESSED 69795 ITERATIONS

SEARCH TIME: 00.00.01

L10 0 SEA SSS FUL L1

=> s full 12

FULL SEARCH INITIATED 17:20:47 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 81845 TO ITERATE

100.0% PROCESSED 81845 ITERATIONS

SEARCH TIME: 00.00.01

L11 0 SEA SSS FUL L2

=> s full 13

FULL SEARCH INITIATED 17:20:51 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 11294 TO ITERATE

100.0% PROCESSED 11294 ITERATIONS

SEARCH TIME: 00.00.01

L12O SEA SSS FUL L3

=> s full 14

FULL SEARCH INITIATED 17:20:54 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 69795 TO ITERATE

100.0% PROCESSED 69795 ITERATIONS

SEARCH TIME: 00.00.01

L13 0 SEA SSS FUL L4

=> s full 15

FULL SEARCH INITIATED 17:20:58 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 81845 TO ITERATE

100.0% PROCESSED 81845 ITERATIONS

SEARCH TIME: 00.00.01

L14 0 SEA SSS FUL L5

=> s full 16

FULL SEARCH INITIATED 17:21:02 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 28788 TO ITERATE

100.0% PROCESSED 28788 ITERATIONS

SEARCH TIME: 00.00.01

L15 0 SEA SSS FUL L6

=> s full 17

FULL SEARCH INITIATED 17:21:08 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 83586 TO ITERATE

100.0% PROCESSED 83586 ITERATIONS

SEARCH TIME: 00.00.01

O ANSWERS

0 ANSWERS

0 ANSWERS

0 ANSWERS

O ANSWERS

0 ANSWERS

4 ANSWERS

L16

=> s full 18

FULL SEARCH INITIATED 17:21:14 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 115678 TO ITERATE

100.0% PROCESSED 115678 ITERATIONS

5 ANSWERS

SEARCH TIME: 00.00.03

L17 5 SEA SSS FUL L8

=> s full 19

FULL SEARCH INITIATED 17:21:21 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 9438 TO ITERATE

100.0% PROCESSED 9438 ITERATIONS

O ANSWERS

1500.91

SEARCH TIME: 00.00.01

L18 0 SEA SSS FUL L9

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

1500.70

FULL ESTIMATED COST

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FILE COVERS 1907 - 27 Mar 2006 VOL 144 ISS 14 FILE LAST UPDATED: 26 Mar 2006 (20060326/ED)

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http://www.cas.org/infopolicy.html

=> s (l16 or l17)

3 L16

3 L17

L19 3 (L16 OR L17)

=> d l19 abs ibib hitstr 1

L19 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

AB Esters, amides, and imidazolidines containing chloro, phosphate,
dithiophosphate, thio, epithio, mercapto, and sulfuryl groups, alone or in
combination, were evaluated as high-pressure lubricants and lubricant
additives for paraffin and diester lubricants. The epithio group was the
most effective in enhancing the antiwear and extreme-pressure preformances
of the compds. as additives; sulfurized and chloro sulfone derivs. were
somewhat less effective. The phosphate and dithiophosphate derivs. were
good antiwear additives, but only the latter appeared potentially useful

for improving extreme-pressure lubrication. Structure-performance

correlations favored use of the esters over the amides.

ACCESSION NUMBER:

1976:76603 CAPLUS

DOCUMENT NUMBER:

84:76603

TITLE:

Lubricants and lubricant additives. II. Performance characteristics of some substituted fatty acid esters

AUTHOR (S):

Magne, F. C.; Mod, R. R.; Sumrell, G.; Koos, R. E.;

Parker, W. E.

CORPORATE SOURCE:

South. Reg. Res. Cent., ARS, New Orleans, LA, USA

SOURCE:

Journal of the American Oil Chemists' Society (1975),

52(12), 494-7

CODEN: JAOCA7; ISSN: 0003-021X

DOCUMENT TYPE:

Journal

LANGUAGE:

English

58401-49-3

RL: USES (Uses)

(lubricant additives)

RN58401-49-3 CAPLUS

CN Thiiraneoctanoic acid, 3-octyl-, thiiranylmethyl ester (9CI) (CA INDEX

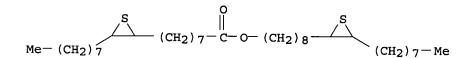
IT 54479-69-5 58401-55-1 58401-73-3

RL: USES (Uses)

(lubricants and lubricant additives)

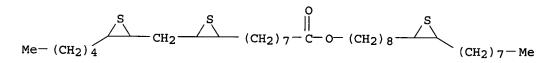
RN54479-69-5 CAPLUS

CN Thiiraneoctanoic acid, 3-octyl-, 8-(3-octylthiiranyl)octyl ester (9CI) (CA INDEX NAME)



RN 58401-55-1 CAPLUS

Thiiraneoctanoic acid, 3-[(3-pentylthiiranyl)methyl]-, CN 8-(3-octylthiiranyl)octyl ester (9CI) (CA INDEX NAME)



RN 58401-73-3 CAPLUS

CN Thiiraneoctanoic acid, 3-octyl-, 1-[[3-[8-(4-morpholinyl)-8oxooctyl]thiiranyl]methyl]heptyl ester (9CI) (CA INDEX NAME)

=> d l19 abs ibib hitstr 2

L19 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN N-alkyl and N,N-dialkyl or N-alkyl-N-alkoxyalkyl amides of C16-C22 alkenoic or alkanoic fatty acids are good base lubricants. The introduction of divalent S, particularly the epithio group, into the fatty acid moiety imparts extreme pressure (EP) lubricity. Introduction of hydroxy and alkyl phosphate groups $\boldsymbol{\alpha}$ to each other also imparts EP lubricity. Examples of compds. useful as base lubricants are N-methyl-N-butyloleamide [13827-53-7] (I) and N-ethoxyethoxy propyloleamide [49542-57-6] (II). Examples of EP lubricants are N, N-dibutyl-9, 10-epithiostearamide [49542-62-3] (III), 9,10-epithiostearoyl morpholine [49542-63-4], and N-[9(or 10) -hydroxy-10(or 9) -dibutylphosphoryl)]stearamide (IV). IV and its mercapto analog also show antiwear activity. Examples of the preparation of the above compds. and many others are given. The lubricity of these compds. in the Shell Four-Ball wear test using 600 rpm, 120° and 5 kg load for 1 hr are as follows I 0.607, II 0.526, III 0.842, IV 0.498, 100 sec paraffin oil (V) 0.803, Aeroshell (Mil. 7803) bis(2-ethylhexyl) sebacate and additive (VI) 0.587, and Gulf Pride Single G MS multiviscosity oil (VII) 0.447 mm scar D. V is an oil without additives while com. VI and VII are com. lubricants which contain additives to improve performance. Examples of tests of these compds. as EP and low wear additives are given.

ACCESSION NUMBER: 1975:88387 CAPLUS

DOCUMENT NUMBER: 82:88387

TITLE: N-Substituted fatty acid amide lubricants

INVENTOR(S): Magne, Frank C.; Mod, Robert R.; Sumrell, Gene;

Parker, Winfred E.

SOURCE: U. S. Pat. Appl., 42 pp.

CODEN: XAXXAV

DOCUMENT TYPE:

Patent English

LANGUAGE:

Engi

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 334318		19730221	US 1973-334318	19730221
US 3873457	,	19750325	US 1973-334318	19730221

IT 54479-69-5P

RL: PREP (Preparation)

(preparation of and lubricating oil additives from)

RN 54479-69-5 CAPLUS

CN Thiiraneoctanoic acid, 3-octyl-, 8-(3-octylthiiranyl)octyl ester (9CI) (CA INDEX NAME)

$$S$$
 (CH₂) $7 - C - O - (CH2) 8 - (CH2) $7 - Me$$

=> d l19 abs ibib hitstr 3

L19 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

AB The low-temperature vulcanization of natural or synthetic diene-type rubbers with polythiirane compds. in the presence of a catalyst is disclosed. polythiirane compds. specified in the examples are: 4,5-epithiopentyl 4,5-epithiopentanoate; bis(2,3-epithiopropyl) ether of bis(4-hydroxyphenyl)dimethylmethane (I); bis(2,3-epithiobutyl) ether and bis(2,3-epithiopropyl ether) of ethylene glycol. The catalysts used include diethylaminopropylamine (II), and a BF3Et2O complex. The materials can be mixed on a conventional rubber mill or in solution in a mixed aromatic hydrocarbon-ketone solvent from which the vulcanizate ppts. The products are particularly suitable for metal adhesives. Thus, Hycar 1432 rubber 4, I 2.5, and II 0.75 g. were mixed in 20 g. iso-BuCOMe and 4.5 g. C6H6. The resulting cement was spread on 2 pieces of Cu foil and air-dried for 15 min. The pieces were then clamped together for 24 hrs. after which the Mean Peel Load test (ASTM-816) showed a value of 7.6 lb./in. A similar cement was applied to the surfaces of Al foil. After aging for 11 days, the bond was subjected to the Breaking Load test (ASTM-D-1002) and a value of 75 lb. was found.

ACCESSION NUMBER: 1961:30611 CAPLUS

DOCUMENT NUMBER: 55:30611
ORIGINAL REFERENCE NO.: 55:6009d-g

TITLE: Polythiirane-rubber compositions

INVENTOR(S): Mackinney, Herbert W. PATENT ASSIGNEE(S): Union Carbide Corp.

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-			
US 2962457		19601129	US 1958-728514	19580415

IT 102540-61-4, 1-Pentanol, 4,5-epithio-, 4,5-epithiovalerate (in rubber vulcanization)

RN 102540-61-4 CAPLUS

CN Valeric acid, 4,5-epithio-, 4,5-epithiopentyl ester (6CI) (CA INDEX NAME)

---Logging off of STN---

=> Executing the logoff script...

=> LOG Y

SINCE FILE	TOTAL
ENTRY	SESSION
17.63	1518.54
SINCE FILE	TOTAL
ENTRY	SESSION
-2.25	-2.25
	ENTRY 17.63 SINCE FILE ENTRY

STN INTERNATIONAL LOGOFF AT 17:24:35 ON 27 MAR 2006